

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re U.S. Patent Application of )  
TAKAHASHI et al. )  
Application Number: To be Assigned )  
Filed: Concurrently Herewith )  
For: MAGNETIC SENSOR AND MAGNETIC HEAD WITH )  
THE MAGNETIC SENSOR )  
ATTORNEY DOCKET NO. HIRA.0149 )

Honorable Assistant Commissioner  
for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97, this Information Disclosure Statement is submitted in the above-identified patent application. A listing of documents to be published on the face of any patent granted from this application is submitted herewith on Form PTO-1449. Any other documents or information submitted for consideration by the Examiner are listed in this paper. A copy of each U.S. and foreign patent, or each publication or portion thereof listed or herein identified, submitted herewith.

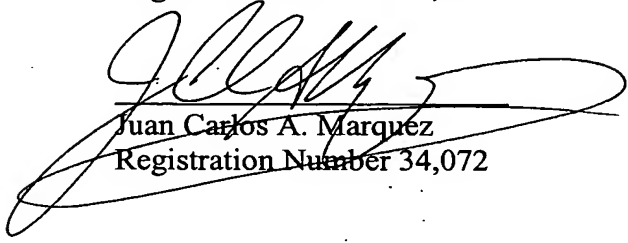
This Information Disclosure Statement is submitted with the initial filing of the application. Accordingly, no fee is due or payable at this time.

The Examiner is requested to acknowledge consideration of the information provided in this paper in accordance with prescribed procedures.

Please charge any additional fees or credit any overpayments in connection with this paper to Deposit Account No. 08-1480.

Respectfully submitted,

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Form PTO 1449  U.S. Department of Commerce Patent and Trademark Office  Information Disclosure Statement by Applicant	ATTY. DOCKET NUMBER HIRA.0149	SERIAL NUMBER To be Assigned
	APPLICANT Takahashi et al.	
	FILING DATE Concurrently Herewith	GROUP

U.S. Patent Documents

Examiner Initial		DOCUMENT NUMBER	DATE	NAME	CLA SS	SUBC LASS	FILING DATE

Foreign Patent Documents

Examiner Initial		DOCUMENT NUMBER	FILING DATE	COUNTRY	CLASS	SUB- CLASS	TRANSLATION	
							YES	NO
		4-358310	11/28/91	Japan			Abstract	X
		2000-137906	4/2/99	Japan			Abstract	X
		2001-168414	12/3/99	Japan			Abstract	X
		2001-230471	11/22/2000	Japan			Abstract	X
		2002-190630	8/1/2001	Japan			Abstract	X
		03-154217	11/13/89	Japan			Abstract	X
		7-221363	2/1/94	Japan			Abstract	X
		11-509956 *	5/20/97	Japan				X
		WO 97/44781	5/20/97	PCT			X	

Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)

	Jedema et al., "Electrical Detection of Spin Precession in a Metallic Mesoscopic Spin Valve", 2002 Macmillan Magazines Ltd., Letters to Nature, pp. 713-716
	C. Heide, "Effects of Spin Accumulation in Magnetic Multilayers", 2001 The American Physical Society, Physical Review B, Vol. 65, 05441, 17 pages
	Liu et al., "Electric-Pulse-Induced Reversible Resistance Change Effect in Magnetoresistive Films", 2000 American Institute of Physics, Applied Physics Letters, Vol. 76, No. 19, pp. 2749-2751
EXAMINER	DATE CONSIDERED
<i>EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP 609; draw a line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant</i>	

\* corresponds to WO 97/44781 patent listed above